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(54) Title: CONJUGATES OF TC COMPLEXES AND TARGETING MOIETIES AND THEIR USE IN MRI DIAGNOSTIC

(57) Abstract: The present invention relates to improved ^{99m}Tc radiometal complex compositions of aza-diaminedioxime ligands, together with radiopharmaceutical preparations containing them, and kits for the preparation of the radiopharmaceuticals. The technetium metal complexation chemistry of aza-diaminedioxime-targeting molecule chelator conjugates is shown to give rise to a multiplicity of technetium species. The present invention provides an improved aza-diaminedioxime conjugate technetium metal complex composition in which the presence of the less desirable technetium species is suppressed.

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